OSCILLATOR

Oregon Tualatin Valley Amateur Radio Club(Est. 1978) March 1998

OTVARC

1998 - TWENTIETH ANNIVERSARY YEAR

THE PREZ SAYS

By Betty, N7REX

Thank you to everyone who brought cookies in to share at the February meeting. That was a nice treat. My cookie monster was very happy, especially when some of the cookies were left at the end of the meeting and he had to take the leftovers home.

Mary Lou Brown will be our speaker for the March meeting. She will be sharing ARRL news as well as sharing slides of her latest DX-expedition to Anguilla (before and after hurricane Luis). She reports that the island has recovered, but the ham station isn't what it used to be.

It was good to see her at the February camp out. This is the second year we have had the pleasure of her company at our camp out. Speaking of the camp out, thank you to everyone who helped make it a surprise for Chuck. He was surprised to see his call sign in blocks at Rickreall, but didn't get suspicious - after all, he knew I hadn't gone there. He had the car!

Chuck will be putting some information in the newsletter about CERT (Citizen Emergency Response Training). We are hoping that a lot of people will sign up to take the class on Monday night. If we have enough interest, they will offer the class that night. I would like to take the training, but could not at the present, as it is on Wednesday nights. Call and sign up if you are interested, and I hope to see you there.

February was a busy month and I have run out of time, so this month will be a short message. See you at the March meeting. 73, Betty

MARK YOUR CALENDAR
MAY 30 AND 31
SEA-PAC

☆A REMINDER☆

It may have slipped your mind, but the new dues year is here! If you've forgotten to renew your membership, just slip a check into the mail, or see Van, KE7BB, at our March meeting and he will gladly put a big check mark in the "Paid" box by your name!
The club PO address is: OTVARC, PO BOX 5132, ALOHA, OR 97006-0132

NEW MEMBER

By W7OTV

Please welcome Bonnie Goudon, KC7YOB, to OTVARC. Bonnie lives on Gertz Court in NE Portland. Please help Bonnie get acquainted and involved with the many opportunities provided by our club.

NEXT MEETING

WEDNESDAY, MARCH 11

Our ARRL Northwest Division Director, Mary Lou Brown, NM7N, will be our speaker. She will provide us with the latest information on the ARRL, and may even give us a few hints on how her recent DXpedition to Anguilla in the Caribbean turned out. She is always a positive and informative speaker we all enjoy.

ELECTRONIC INTERFERENCE

By Frank, KB7RNV

Walk into any neighbor's home and most likely you will find many electronic devices. Each of these is a potential source of electronic interference. The complex electronic circuitry that one finds in our homes today creates a vast interference potential that didn't exist in earlier times. Every lamp dimmer, hair dryer, garage door opener, radio transmitter, microprocessor controlled appliance or remote controlled new technical toy contributes to the electrical noise around us.

Interference, for our purposes, is defined as any unwanted interaction between electronic systems. Your own equipment can be a source of interference. You might experience interference from a nearby noise source.

Interference occurs when radio signals or electromagnetic noise sources are picked up by household electronic products, most often telephones, audio equipment, VCRs, or TVs. Defective neon signs, bug zappers, thermostats, electrical appliances, switches or computer systems are just a few of the possible sources of interference. In some cases, the noise may be the result of a dangerous arc in electrical wiring or equipment and may provide warning of an unsafe condition that should be immediately located and corrected.

Not that long ago a local ham requested assistance in locating and eliminating interference at his home station. The noise at times exceeded S9, completely blocking any incoming signals. A power company transformer was suspected. However, it was soon discovered the interference occurred only after dark, suggesting some other source. The most probable source was a nearby shopping center. The customers there probably thought I was a little nuts as I traversed the parking lot with a portable radio held to my ear. But the source of the noise was soon traced to a neon sign. Assistance from the local commercial radio station technician, sprinkled with a healthy dose of diplomacy, soon convinced the store manager to repair his sign. when he did, the interference stopped.

You, as the station operator, are responsible for the proper operation of your equipment. Your station should be properly designed and installed. You should have a good ground and use a low pass filter, if one is needed. If you do experience electronic interference, you need to find its source and correct the problem.

Not all cases of interference require technical investigation to resolve. Sometimes, the easiest solutions are best. If you suspect that the problem is caused by electrical noise, check for overloaded circuits, frayed wires, loose sockets, etc. These types of problems should be fixed no matter what! Shut off one breaker at a time, noting if this has any effect on the interference. If so, determine which devices are connected to that particular line, then remove the suspect devices one at a time. when the interference goes away, you have found the culprit.

Filters can be obtained for your equipment. These filters usually eliminate unwanted interference if they are used properly. Several companies sell telephone interference filters that are very effective. A high pass filter may reduce interference to an antenna connected television receiver or VCR. An AC line interference filter may help with electrical or radio interference.

It is impossible to list all of the cures for interference problems in this short article. It is a very complex subject. The ARRL sells a book RADIO FREQUENCY INTERFERENCE-HOW TO FIND IT AND FIX IT. This book provides guidance and technical information. Another helpful publication is the FCC's INTERFERENCE HANDBOOK.

Interference can be cured by using simple problem solving techniques, diplomacy, enlisting professional help, and applying the right filtering to the right device.

ACCURACY IN FILLING OUT MEMBERSHIP RENEWAL FORMS NEEDED!

Randy, KZ7T, wants to remind everyone who is renewing their membership to print legibly and in large enough letters so that the information can be accurately transcribed onto the membership roster that he provides. He also says that he can provide a roster with all of the individual activity categories listed on it for each person — call him at 297-1175 if you would like a special listing.

WEEKLY SATURDAY NIGHT SWAP NET

From The MARC WIRELESS

A weekly Saturday night swap net has been started on the Chehalem Mountain Repeater, 145.49Mhz. The two hour net starts at 7:00PM.

The plan is to keep the listings simple and fairly local, so that people interested in buying, selling or trading will be logistically able to get together in person and make the deal.

For more information, call Carl or Beth Belnap in Dayton at 503 864-9070.

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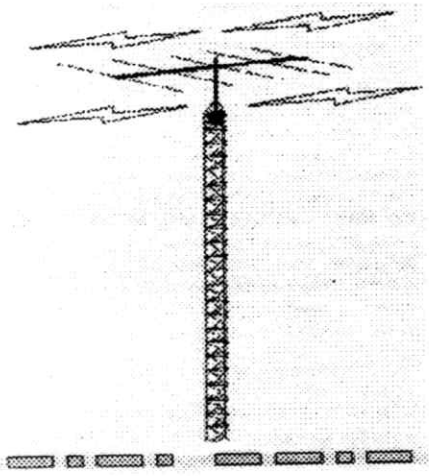
A VERBAL GRAPHICAL DESCRIPTION OF ANTENNA OPERATION

By Vinnie Hueber, N2TAI
From CQ Magazine

Most of us have wondered at one time or another how all that educated aluminum above the house really sends the signal in the direction we want it to.



One look at some of the textbooks on antenna theory leaves most convinced that all those numbers, formulas, and symbols are really incantations recited by the design engineers over each neatly packaged system before it leaves the factory so it will do what they say it will when you put it up.

There are also those of us who look up a set of dimensions in the antenna handbook that should work, if adhered to, and then find out what the price of aluminum tubing is, so we buy the kit anyway. Neglecting all the ...th and construction work, lets look at how does an antenna work?

The following is a very generalized description of antenna operation. No! You won't be able to build a super DX getter from the explanation, but it should help in understanding how directive antennas work. To begin with, what are directivity and gain? Well, for one thing they are inseparable. You cannot have gain without directivity or directivity without gain, although some mighty inefficient systems kind of make you wonder.

To get gain, the antenna has to take some of the signal from the undesired directions and add it to the signal in the desired direction. Therefore, the more gain the narrower the beam width.

So how do we get them? By algebraically adding the signals of antennas (plural) in a common near field. How's that again?

It's simply putting a number of antennas close enough to each other so their signals will add in the desired direction and cancel, or at least be reduced in the undesired direction.

In the case where all elements are driven, such as with a "phased" vertical array, the directivity and gain are derived from both the spacing between the antennas and the feed line lengths. Changing ...ner will change the phasing and thus the gain and directivity.

What about parasitic arrays such as the Yagi or quad designs? Same thing! Except, the phasing is done by varying the element spacing and length to get the desired effect.

Start with the driven element and also the assumption that the element is resonant and has an SWR of 1:1.

With the arrival of the first cycle of RF energy at the feed point, the current will flow toward the outer ends of the element; at the same time the magnetic field generated by the current will radiate out toward the other. elements at about the same speed as the current traveling toward the ends of the element.

Most of the magnetic field will be coupled to the elements in front and back of the driven element rather than being radiated out into space. When this field reaches these elements it will in turn induce a current in them.

Upon arrival at the ends of the driven element the current changes its phase by 180 degrees. It also would be correct to say the instantaneous polarity of the current has reversed at that point. The current then travels back to the feed point and arrives in phase with the next cycle from the feed line.

Meanwhile, the currents which were induced in the other elements have created their own magnetic fields which radiate back to the driven element. The field from the director will be more or less out of phase when it reaches the driven element and that from the reflector will be more or less in phase at that point. This will cause the signal radiated toward the rear of the antenna to be reduced in strength and that toward the front to be increased in strength.

As the field from the next cycle radiates from the driven element it will arrive more or less in phase with the current at the first director and out of phase at the reflector. This again will result as an increase in signal strength toward the front of the antenna and a reduction toward the back of the antenna.

In the case of the directors, being shorter than the resonant length will cause an advance in phase. Also, progressively shortening them toward the front of the antenna will tend to give better performance across a wider frequency range with only a small sacrifice in gain at the design frequency.

Using multiple driven elements and making them slightly different lengths will also allow the antenna to operate over a wider frequency range.

This is not a precise explanation, but then neither is the performance of the antennas perfect or there wouldn't be any side lobes and the front to back ratios would be much greater than some of the larger figures we see for some of the big antennas today. All of the antennas I know of today can be visualized as operating on this principle.

A long wire can be viewed as a number of individual antennas in series, as can the helix, or even the big dish type used for microwave frequencies. So, even if you can't build a big antenna directly from this explanation, I hope it has at least helped in understanding how they work.

COMMUNITY EMERGENCY RESPONSE TEAMS (CERT) -PEOPLE HELPING PEOPLE-

Bby Chuck, KI7CL)

The City of Hillsboro is proud to provide you with quality emergency fire, police and medical services. In the wake of a disaster, however, emergency services may be unavailable due to debris and road damage plus an overwhelming need for emergency medical and fire response. Some basic training in disaster survival and rescue skills would improve your neighborhood's ability to emergency responders or other assistance could arrive.

In response to that training need, the City is initiating a Community Emergency Team (CERT) program. The goal of the program is to provide for self-sufficiency and initial services during the first 72 hours after a disaster.

There is Time and Talents Commitment involved. As you can see from the course outlined inside, the training is technical and covers a broad range of skills. Your minimum time and talent commitments will be:

- Initial training: 3-hour classes one evening per week for 8 weeks
- Preparation time: 2 hours per week
- Follow-on training: 3 hours per quarter
- Leadership: four leadership positions on each team.
- Financial Commitment: There is also a financial commitment for each CERT member.

The City will provide:
safety vest
hard hat
safety goggles
work gloves
Each member would be required to complete his or her own CERT supplies kit by the end of the course, according to the Supplies List inside. You may already have many of the items around the house; others would need to be purchased or possibly donated by businesses.
The CERT kits will be discussed in more detail during the first week of training.

Course Description: CERT is people helping people. The 24 hours of instruction are designed to provide a well-trained volunteer work force. Our "ideal" CERT member is anyone who desires to learn the skills required to assist themselves and their neighbors during a disaster. Each class meets one evening per week for eight weeks. The course consists of the following:

Class 1 Family Preparedness: Home and family preparedness, how to organize your neighborhood to function as a team during a disaster.

Class 2 Disaster Preparedness: the natural disaster threat to our area, the impact of disasters on the infrastructure, hazards posed by buildings and nonstructural items, and the role of CERTs in disaster response.

Class 3 Disaster Fire Suppression: fire chemistry identifying and reducing potential fire hazards, basic fire suppression strategy, fire fighting resources, fire fighting techniques.

Class 4 Disaster Medical Operations, Part 1: treatment strategies for life-threatening conditions, principles of triage.

Class 5 Disaster Medical Operations, Part 2: head-to-toe patient assessments, establishing treatment areas, treatments for burns, lacerations, fractures, sprains, and other injuries.

Class 6 Light Search & Rescue Operations: search & rescue priorities and resources; techniques for situation size-up; lifting, cribbing, and victim removal; and rescuer safety, including recognizing rescuer limitations and construction-related hazards.

Class 7 Disaster Psychology and Team Organization: post-disaster emotional environment, CERT organization, CERT decision making and documentation.

Class 8 Course review and a practical exercise to use the skills you have

Supplies List – Equipment and supplies recommended as a minimum for CERT members:
Backpack or canvas/nylon bag with shoulder strap
Hard hat (provided)
Safety vest(provided).
Safety goggles (provided)
Work gloves (provided)
Sturdy boots
Duct tape
Masking tape
Scissors
Thin- and thick-point markers
Notepad
Latex gloves
Utility knife
Pens
First aid supplies
Flashlight
Portable radio
Spare batteries, bulbs
Secondary light or light sticks
Dust masks
Personal hygiene supplies
Crescent wrench
Water purification tablets
Canteen
Non-perishable food
Stored water

A new program will be starting in April. The 8 sessions are normally held on Wednesday nights, however, if enough people are interested, a Monday night series could be started. Although this program is primarily targeted to Hillsboro residents, as ham radio operators, we are encouraged to avail ourselves of this program.
Please let Sharon Kennedy (City of Hillsboro Emergency manager) know if you are interested in attending these sessions. Her number is 642-0370.

Thanks to everyone in OTVARC for the really beautiful Azalea you sent to me during my recent stay in St. Vincents.
It is much appreciated. Dale LeBarron, W7FBP

RED CROSS FREQUENCY

By W7OTV
From ARRL Field Forum

Recently OTVARC has received formal requests from our local chapter of the American Red Cross to switch our club simplex frequency, 147.42Mhz, so that the local SW Washington/NW Oregon District 1 emergency band plan can assign this frequency to the ARC. OTVARC's new assigned simplex frequency is 147.54Mhz.

This simply means that these frequencies will be listed as assigned to these two organizations for emergency communications. If an emergency arises, whoever wishes to contact either of these groups will then be able to determine their contact frequency. Naturally, during emergency exercises these frequencies will be used by the various emergency groups to conduct their practice scenarios.

After due consideration, the OTVARC Board sees no compelling reason not to support this change. The following letter provides an overview of the reasoning behind the request.

Proposal: Designated ARES/American Red Cross Frequencies

Consider the following scenarios: You are a registered ARES volunteer, traveling many miles from home. You encounter severe weather or other emergency situation. Lives and property have been affected. In order to obtain or provide information or offer your assistance, you want to contact other ARES volunteers that may have been activated. What frequency do you select?

You are a national American Red Cross DSHR (Disaster Services Human Resources) volunteer and a licensed amateur. You have been activated and are being called to a disaster scene across the country. You have your transceiver with you and want to make contact with the local Red Cross via the ARES net as soon as you arrive in the area. What frequency do you choose to make quick and efficient contact?

The American Red Cross uses the "low-band" public service frequency of 47.42Mhz nationally for disaster communications. Radios on this frequency are often scarce, or busy with traffic by *authorized* non-ham disaster workers. Since ARES volunteers frequently provide emergency communications for the Red Cross, and are often highly mobile, I propose that the ARRL designate 147.42 Mhz as the national ARES/Red Cross simplex frequency.

If every ARES volunteer in the country would program 147.42 Mhz into his or her 2 meter transceiver it would promote quick, effective, coordinated, mutual-aid communications during disasters-anywhere. Red Cross facilities could also have 2 meter base antennas pre-installed.

This standardization would be of tremendous value by expediting emergency and disaster communications in the future. Remember, the question isn't "will we ever need it?" it's "when will we need it?"

David Thome, KC6HOY
Siskiyou County (CA) Emergency Coordinator
e-mail: **lazyt@iuno.com**

CLARK COUNTY ARC SCHEDULES APRIL VE SESSION

By W7OTV

The Clark County Amateur Radio Club VE Team announced that the Volunteer Examiners for Amateur Radio Licenses will conduct examinations for all classes on April 4th. Testing will begin at 8:30 AM for the CW tests and 11:00 AM for the written tests.

The event will be held in conjunction with the Clark County Amateur Radio Club's Flea Market at the American Legion #176 Building, 14011 NE 20th Avenue, Vancouver, WA.

The talk-in repeater is 147.24 Mhz. For more information call CCARC's telephone number at (360) 896-8909.

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"HAMS" TO CHASE "FOXES" IN LATE APRIL

From The sPARC Gap

"CQ VHF" National Foxhunting Weekend
April 25-26, 1998

A ham radio magazine is urging amateur radio clubs and operators across America to go "Foxhunting" on the last weekend in April. But the bushy-tailed animals have nothing to fear. Hams, after all, are not hounds, and in ham radio lingo, a "foxhunt" is one of several names for Amateur Radio Direction Finding (ARDF), a competition to locate a hidden radio transmitter.

"CQ VHF" magazine has designated the last weekend in April as the "CQ VHF National Foxhunting Weekend," and is encouraging ham operators and radio clubs to conduct a hidden transmitter hunt at that time. Unlike traditional ham radio contests, there are no standardized rules, log sheets or reporting forms.

"It's not a national contest, and there are no set rules," writes radio Foxhunting veteran Joe Moell, K0OV, in an article announcing the event in the upcoming April issue of "CQ VHF". "It's just a time for clubs, schools and Scout groups to try this exciting radiosport." Moell notes that participation is not limited to licensed hams. "There's no license requirement to receive, so everyone can participate."

On-air competition is a ham radio tradition dating back nearly to the birth of the hobby, and Foxhunting has been part of that tradition for at least 60 years. Foxhunting may be done by car or on foot, and the magazine is encouraging ham groups to use either one or both during the National Foxhunting Weekend. And there's more than a fun day of friendly competition involved.

"Foxhunting is certainly fun and a competitive challenge," says "CQ VHF" Editor Rich Moseson, W2VU, " but it also teaches important direction-finding skills that may be called upon in searching for a downed airplane or lost hiker using an Emergency Locator Transmitter, or for tracking down sources of interference."

"Transmitter hunting belongs in the mainstream of amateur radio," adds Moell. "Ham RDF can be used for public service and to save lives."

The "CQ VHF" National Foxhunting Weekend coincides with efforts by other ham radio groups to promote the sport. The Portland, Oregon, based Friendship Amateur Radio Society has been working to bring intemational-style, on-foot, Foxhunting – already popular in Europe and Asia – to North America. And in January the American Radio Relay League (the largest U.S. ham radio organization) endorsed those efforts and approved the appointment of a national ARRL ARDF Coordinator to encourage activity.

Groups participating in the "CQ VHF" National Foxhunting Week-

(Continued on page 7)

(Continued from page 6)
end are encouraged to send reports of their activity directly to Joe Moell, K0OV, at PO Box 2508, Fullerton, CA 92837, or via e-mail <homingin@aol.com>. E-mail reports may also be sent to the magazine at <cqvhf@aol.com>.

Editor's note: A local 'bunny hunt' is usually held on the first or second Sunday of each month. They start at the south side of Vancouver Mall (near the Van Mall sign). It is a mileage based hunt and the scoring is weighted such that the new kid on the block has just as good a chance of winning as the experienced hunter. if you would like further information call Bill, NW7L, at (360) 887-3766.

OTVARC FOR LUNCH BUNCH TO MEET

By Geno, KA7KBH

The March lunch meeting date will be on the 28th. The group will gather at the *COUNTRY BUFFET* in Tigard on Highway 99W. The restaurant is located in the Market Place Shopping Mall where the Bi-Mart store is located.

The address is 13500 SW Pacific Highway and as usual we will meet at 1:30PM. I will arrive a little early and see if I can get some tables together for the group.

Everyone and anyone is invited – come on down and have a fun lunch with the group – you'll enjoy the food also.

AREA HAMFAIRS AND SWAP-MEETS

By Mary Lou, NM7N, Division Director

Mar 7	Mike & Key Fleamarket, Puyallup, WA
Mar 28	Eugene Hamfest, Eugene, OR
Apr 4	Clark County Hamfest, Vancouver, WA
Apr 11	Pendleton ARC, Pendleton, OR
Apr 25	Keno ARC, Klamath Falls, OR
Apr 26	Umpqua Valley ARC, Roseburg, OR
May 9	Portland ARC Swapmeet, Hillsboro, OR
May 16	Yakima Hamfest, Selah, WA
May 29-31	**SeaPac, Seaside, OR**
Jun 27-28	Field Day

PUBLIC SERVICE OPPORTUNITY

By W7OTV

The Portland, OR area will be the scene of The Nike sponsored World Masters Games during August 8th through 22nd. All amateurs in the area will have the opportunity to assist with the communications during the running of the games - a major task, since different events will be scheduled from the Eugene area north to the SW Washington area.

Hopefully, we will begin to see some planning and scheduling information so that our many Public Service minded OTVARC members will have a chance to begin planning their own involvement.

Watch for more information here in your newsletter.

AREA VE TESTING SCHEDULED

By K7OTV

Phantom Amateur Radio Club (PARG)
Second and fourth Sunday of each month
Contact John, KA0SSF, at 503-626-7399

Salem Amateur Radio Club
Third Saturday of each month
Contact Sandy, N7TQQ, at 1-800-920-9604

Clark County Amateur Radio Club
April 4, 1998
Contact 360-896-8909

Portland Adventist Radio Club
April 12
Portland Community Policing Center
Contact Edith, KA7MIF, at 642-5803

Hoodview Amateur Radio Club
Contact Patsy, KA7MZZ, at 503-668-4305

Oregon Tualatin Valley Amateur Radio Club
4 Apr, 6 Jun., 1 Aug., and 5 Dec.
Testing will be at the TV Fire & Rescue Bldg., 20665 SW Blanton in Aloha., from 1PM TO 5PM.
Contact Carl Clawson at 503-629-5796 or 526-4610 if further details are needed.

ARE YOU GOING TO BE READY?

The above VE Testing schedule lists the 4 April license testing scheduled by our own VE Coordinator, Carl Clawson, WS7L.

Testing takes place in Aloha and you've got time to brush up and get ready for the test. Call Carl for further details you might desire.

NICKEL CADMIUM BATTERIES

From The Long Wire

The popular choice for ham radio HTS, cell phones, laptop computers, video cameras and power tools is the Nickel Cadmium (NiCd) Battery. This choice is understandable since NiCds have good load characteristics, are simple to use and are economically priced. They allow fast and slow charge, have a high number of discharge cycles and easily recharged after prolonged storage.

The energy density of a NiCd is about two thirds that of a nickel metal hydride (NiMH) and 50% greater than a sealed lead acid battery. With proper care it has a typical cycle life of 1,500 cycles, about 5 times greater than a sealed lead acid battery. It does not mind fast charging and it can be fast charged in about 1 1/2 hours. It does exhibit self discharge and it will lose about 10% capacity within the first 24 hours of charging and will lose 10% each month thereafter.

A NiCd battery has a cell voltage of 1.2 volts. An eight cell battery has a nominal voltage of 9.6 volts. The rating of a NiCd, C(capacity), is a unit in which charge and discharge times are scaled. If discharged at 1C, a 1000 mah battery provides a current of 1000 ma. If discharged at 0.5C, the current will be 500 ma and the discharge time will be somewhat greater than 2 hours.

A NiCd battery requires regular exercise. Exercise intervals should be less than 30 days. The cell voltage should be allowed to drop to no less than I volt per cell for full discharge. If allowed to drop further, cell reversal could develop in multi-cell packs. Cell reversal generally ruins the reversed cell in the battery pack rendering the pack useless.

NiCds require constant current charging. A simple slow charger provides a charge rate of 0. IC. For a 1,000 mah battery the charge current is 1.00 ma. To assume full charge under all conditions some over charging is required. The slow rate over-charge is 40%. This extends a 10 hour charge to 14 hours. This apparent over charge provides additional energy to make up for losses in the battery, such as heat and recombination losses.

NiCds can be safely trickle charged at a rate of C/100. More advanced NiCd chargers use the delta temperature method for-full charge detection. For this method, a thermistor monitors the battery temperature and terminates the charge after a certain temperature profile signature.

The Negative Delta V (NDV) charger relies on terminating the charge when the battery voltage during charging peaks, and then decreases. This decrease in voltage is detected by a microcontroller which in turn terminates the charge. The NDV charger only works well with matched NiCd packs.

Finally, there is some misconception about the word "memory". Originally, the word memory was derived from cyclic memory that was experienced in satellite applications. In this use the batteries were cycled to within I to 2% of their capacity prior to charging. This phenomena resulted in an apparent loss in battery capacity of 15 to 20%. Improvements in battery technology have virtually eliminated this problem. The problem with the modem NiCd batten is not cyclic memory, but the effects of crystalline formation.

When a NiCd battery is overcharged the active materials present form tree like crystalline structures called dendrites. Normally, these dendrites dissolve when the cells are purposely discharged to 0.6 volts. The effect of their growth is cumulative over time. They can harden through lack of battery cycling which makes them very difficult to remove. If allowed to grow unchecked they could pierce the thin electrolyte membrane that separates the cell plates. This situation leads to rapid battery self discharge. The formation of dendrites is caused by battery overcharging. Normal dendrite formation causes an apparent loss in battery capacity. As mentioned earlier dendrites can generally be removed by discharging the battery to 0.6 volts per cell.

DAYTON HAMVENTION CHANGES

From Amateur Newsline Weekly

Some major changes are taking place at this years Dayton Hamvention. There will be more exhibit space, easier handicapped parking as well as a concert at the banquet. We have already told you that Country legend Ronnie Milsap, WB4KCG will hold the concert.

There's some old and some new for 1998. "Well, yes and no. I always the same old stuff. Lots of radio stuff. If you can't find it there, you probably can't find it anywhere. The fleamarket has some changes. It will be easier to get into. There will be better parking for ADA compliance parking for them. It's just going to be much easier to get into.

The information services will be better. Instead of having one spot you have to go to find information, there will be four spots and a couple of roaming people" says Dick Miller, N8CBU, who is the General Chairman of the Hamvention.

Soon the new stuff will include the website at:
www.hamvention.org
Just about any information you need is on the website. Information about tickets, passes, lodging, who to contact if you need help.

What is probably the biggest change is the Hamvention Banquet. This year not only is it moved, it's not just a banquet. "We have moved it to the Nutter Center which is the arena at Wright State University. One of the major reasons for moving it is it is much easier to park. There is no charge for parking, it is much easier to get in. It is ground level, there are no steps or ramps to go up or down.

No escalators, just walk right in on the banquet floor and there y are. The banquet will be on the main floor where they play basketball, hockey and that kind of thing. And there are 8,000 seats up, around like any arena would be. *(To be continued in the April newsletter)*

OTVARC Club Contacts

OTVARC Executive Board

President	Betty Mickley	N7REX	642-1284
Vice President	J.D. Fort	KC7EHT	259-0269
Secretary	Dale LeBarron	W7FBP	638-7768
Treasurer	Hanford Van Ness	KE7BB	246-7975
Trustee	Jack Smithson	KA7HOJ	646-1873
Trustee	Will Sheffield	N7THL	642-7314
Trustee	Janet Bell	WB7FJC	648-4147
Trustee	Al Berg	W7SIC	640-5456
Trustee	Maureen O'Rourke	KA7LAP	591-9641

Other Club Contacts

ARRL Coordinator	Bob Orr	WF7Q	472-2716
Bunny Hunting	OPEN		
Contesting	OPEN		
DX News	OPEN		
Equipment Loan	Stan Griffiths	W7NI	649-0837
Equipment Valuation	Randy Stimson	KZ7T	297-1175
Equipment Trustee	Al Berg	W7SIC	640-5456
Emergency Services	J.D. Fort	KC7EHT	259-0269
Field Day Cordinator	Alan Chinnock	KB7POR	636-2237
Healthe & Welfare	Mary Berg	N7TRW	640-5456
Historian	Al Berg	W7SIC	640-5456
Internet Home Page	Marc Chamberlin	WA7PXW	357-1869
Member Badges	Carl Clawson	WS7L	629-5796
Newsletter Editor	Dale LeBarron	W7FBP	638-7768
Newsletter Layout	Dale LeBarron	W7FBP	638-7768
Newsletter Distribution	Al Berg	W7SIC	640-5456
Nominating Committee	Randy Stimson	KZ7T	297-1175
Packet - Club BBS	Rick Braun	KB7OGD	645-1490
Project Night	Alan Chinnock	KB7POR	636-2237
	Chuck Mickley	KI7CL	652-1284
Public Relations	Open	N7VZF	644-1974
Public Service	Randy Stimson	KZ7T	297-1175
Repeater	Wes Allen	K7WWG	649-3295
RFI & TVI	Dale Mosby	K7FW	640-0217
Satellites	Open		
Scholarship	Carl Clawson	WS7L	629-5796
Sea-Pac	Al Berg	W7SIC	640-5456
"	Brad Beach	N7NVC	657-1781
"	Jim Schaeffer	KB7ADH	245-2518
"	Randy Stimson	KZ7T	297-1175
Station Trustee	Chuck Mickley	KI7CL	642-3713
Social	Geno Buell	KA7KBH	614-0563
Technical Specialist	Stan Griffiths	W7NI	649-0837
Tower Ordinances	Greg Milnes	W7AGQ	648-6990
Trailer	Dee Lynch	KA7NPN	646-4580
Training(code)	Burt Rooke(PCC)	KI7JX	241-2891
Training(Novice/Tech)	Burt Rooke(PCC)	KI7JX	241-2891
Training(upgrade)	OPEN		
VE Test Coordinator	Carl Clawson	WS7L	629-5796
VHF/UHF	Arnold Jensen	N7YAG	543-3713

FOR SALE

Tono EXL-5000 Sender-Decoder w/keyboard. CW, European and Japanese morse @ 5 to 100 wpm. Baudot RTTY - ASCII RTTY - JIS RTTY. AMTOR mode has SELCAN system . Cost $700 new - asking $100.

MFJ VERSA Tuner V, Model 989C, like new and Top of the line. 3KW PEP w/roller inductor. Cost $299 new from AES. Asking $75.

Call Jack, W7DNW, at 503-682-7898, in Wilsonville.

OTVARC Club Information

Purpose: The Oregon Tualatin Valley Amateur Radio Club, a Not-for-profit corporation, wants to be instrumental in helping the prospective as well as established Amateur to become a proficient communicator in the Amateur Radio Service.

Additionally, the intent is to promote the advancement of Amateur Radio Service, through the following five objectives:

1. Education & Training of new and licensed Amateurs.
2. Public Service during public events & community activities.
3. Emergency communications during emergencies & disasters.
4. Hobby enhancement through meetings, nets & contests.
5. Social contact with other amateurs & interested persons.

Special Service Club: OTVARC is an ARRL Special Service Club. The ARRL grants us this distinction due to our participation in emergency preparedness exercises, public service events and other service-oriented programs. In addition, continuing educational and training programs are conducted for FCC licenses. OTVARC benefits from you joining the ARRL through OTVARC. To join or renew your membership in the ARRL, contact the treasurer at any regular meeting.

Newsletter: The *OTVARC Oscillator* is the club newsletter. It is published monthly and is usually mailed on the first of the month. The opinions, views, and recommendations of its contributors are not necessarily those of the club, its officers, advertisers or the editorial staff.

Correspondence: All correspondence may be sent to OTVARC, PO Box 5132, Aloha, OR 97006-0132.

Advertising: Classified ads are free to all paid up members. Display ads are available to approved commercial interests. To place an ad, mail your camera ready copy to the address above and indicate the size desired. All display ads run for six months at a time, from January through June and July through December. All ads must be paid for in advance. Rates are as follows:

Full page	8" X 10"	$200 for six months
Half page	8" X 5"	$120 for six months
Qtr page	4" X 5"	$72 for six months
Bus.Card	2" X 3"	$36 for six months

Meetings: We have two meetings per month. The board meeting is on the fourth Wednesday of each month. All club business is conducted at this meeting. All members are welcome to attend. Contact the President for location and time. The general meeting is on the second Wednesday of each month at the Beaverton Elks Lodge. 3500 SW 104th Ave. (1 block north of Canyon Road). Meetings start at 7PM. If you would like to come early, you can get a nice meal from the Elks for less than $6.00.

Membership: OTVARC is open to anyone who is interested in amateur radio. You do not need to be a licensed radio amateur to join. Dues are as follows: Full member, $10/yr; Associate member (non-licensed), $10/yr; Family members of full member, $5/yr; Life memberships available - see the Treasurer. Only full members and life members may vote on club business and serve as club officers. All memberships expire on the last day of the calendar year. If you would like to join during the year, see the club treasurer for prorated dues.

How to join: Simply mail the Membership application and/or renewal form along with your dues to the address above.

Internet Home Page: **WWW.EASYSTREET.COM/OTVARC**

1998 marks OTVARC's twentieth year as an active club!
Please help celebrate this anniversary by contacting any club officer with your ideas on possible anniversary activities.

"Improve Your Repeater Operating Skills."

Your first requirement in FM repeater operating is to have your audio level correctly set. Different voices have different power levels. The distance from you to the microphone comes in here too. If someone tells you to back off from the microphone, pay attention. You are probably over-deviating. Set your mike gain properly. Get help to do this if you have to.

Next, be sure your signal is good. If you're not getting into the repeater solidly, you may be having equipment problems.

Talk in short bursts, not monologues. This is the opposite of HF operation, but is more like normal conversation. It also gives others the opportunity to break in to report an emergency, or simply to join the conversation. For this reason, repeaters have time-outs. If you can't fit your conversation within a, say, 90 second time-out, you probably have too much to say. On the other hand, if you have nothing to say, don't say anything!

Just as on HF, if conditions are poor, speak more slowly and enunciate clearly. People who normally speak fast should remember to slow down, even on FM radio. Put an extension speaker on your radio so that you can hear better. Speaker-mikes are not always good.

Let's look at some things you should do and shouldn't do. Don't over-identify. Have you heard operators give their call sign on every transmission? What a waste of air time! You need identify only every ten minutes and at the last transmission. Have you heard "W8XXX for ID"? No kidding? We know he is sending his call sign to identify, so why say so? Even worse: "For identification, this is ..." We used to be required to say who we are talking to, but no more. And we'll hear some saying "in the group." Why waste everyone's time?

Next Ronni asked if you had ever heard someone say something funny and then say, "hi hi"? If it's funny, just laugh naturally. "Hi hi" was designed to use on CW to indicate laughter, not to be used anywhere else. We hear "on the side." What does this mean? Standing by? Monitoring? Sounds like an order in a restaurant.

How about 73s, best 73s or seventy-thirds? We all know that 73 stands for "best regards." That makes these best regards's; best best regards's and 70/3 or 23 1/3. What do these have to do with Amateur Radio? How about "negative," or "negatory"? Why not say "no"? For "affirmative," why not just say "yes"? How about "land line" or "twisted pair" when referring to the telephone? Some say "The first personal is" or "the handle is." Why not say "my name is"? Then there's "I'm destinated" when you've reached your destination. We have operators, alone in their car or radio shack who say "we." I like to ask them if they have a mouse in their pocket. If you're alone, just say "I."

How about the use of "Q" signals on the repeater? They were designed to be a shorthand on CW. The bottom line is that we should use English only on the repeater. WR

OTVARC

OregonTualatin Valley ARC
PO Box 5132
Aloha, OR 97006-0132

Address Correction Requested